



Accelerating Scientific Discovery Through Computing

The National Energy Research Scientific Computing (NERSC) Center is one of the world's most powerful supercomputing centers, providing 2,500 users around the country with a 10 teraflop/s IBM supercomputer, high-performance storage systems, and the scientific and computing expertise needed to get the best scientific results using these facilities. To meet the scientific demand, the NERSC Center operates 24 hours a day, seven days a week.



For more information, go to <http://www.nersc.gov>.

Powerful Tools for Advancing Science

To help researchers make the most effective use of computing resources, the Computational Research Division researches and develops

new tools, such as algorithm and application libraries for improving the accuracy and improving the performance of scientific calculations. Other efforts

include streamlining access to essential data, developing better ways to manage computer systems, and helping scientists create accurate visualizations of their computational results. Berkeley Lab is also a world leader in creating the middleware to make computation grids more effective and easier to use in building research collaborations.

For more information, go to <http://crd.lbl.gov/>.



Tomorrow's Network Accelerating the Pace of Today's Science

The Energy Sciences Network, or ESnet, is a high-performance backbone network linking more than 40 Department of Energy sites and thousands of researchers around the world at speeds of up to 622 megabits per second. The network is managed and operated by the ESnet staff at Lawrence Berkeley National Laboratory. Connectivity to the global Internet is maintained through peering arrangements with more than 100 other Internet service providers. Funded principally by the Department of Energy's Office of Science, ESnet allows scientists to use unique DOE research facilities and computing resources independent of time



and location with state-of-the-art performance levels.

For more information, connect to <http://www.es.net>.



An IT Infrastructure Enabling World-Class Scientific Research



Berkeley Lab's Information Technologies and Services Division (ITSD) defines, creates and operates the IT infrastructure necessary to support the 3,800 employees at the Laboratory.

The Computing Infrastructure Support Department oversees and manages the Laboratory's computing infrastructure and delivers centralized computing

services and capabilities, including desktop support, email, scheduling, and Web services. The department also provides critical support for a growing number of computer clusters.

The Information Systems and Services Department designs, implements and operates Berkeley Lab's institutional information systems. These systems provide the information and data management capabilities needed for the administration and management of the Laboratory and support such areas as finance, human resources, procurement, facilities, resource management, technology transfer, and environmental health and safety.

The Networking and Telecommunications Department provides the Laboratory with telephone and networking services, including videoconferencing, remote access to Lab computers and telecommunications support.

The Technical and Electronic Information Department is the Lab's central resource for technical information and media services, including technical reports, video, audio-visual presentations, Web design and informational publications. TEID also maintains the Lab's library and Archives and Records unit.

For more information, go to <http://www.lbl.gov/ITSD>.

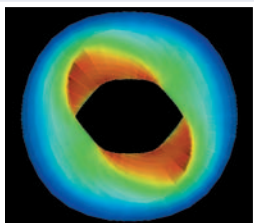
Meeting the Challenge of Scientific Computing and Networking

The Computing Sciences organization at the U.S. Department of Energy's Lawrence Berkeley National

Laboratory provides the computing and communications resources to accelerate scientific research at Berkeley Lab, across the nation and around the world. Berkeley Lab's Computing

Sciences programs cover a broad range from operating national facilities, developing new computational tools and technologies to advance scientific research and collaboration, and providing the critical information technology needed by Berkeley Lab's scientific research programs.

Berkeley Lab serves the national research community by operating the National Energy Research Scientific Computing Center and the Energy Sciences Network. To ensure that these national facilities meet today's and tomorrow's research needs, the Laboratory researches and develops new computing and networking technologies. Berkeley Lab's computational science and mathematics programs provide the computational tools to advance research in DOE's mission areas.



Computing Sciences at Lawrence Berkeley National Laboratory pushes the limits of today's technology while inventing new tools for tomorrow's research. Thriving in this environment demands new ideas and fresh thinking. Sound interesting? Check out our current job opportunities at <http://www.lbl.gov/CS/Careers>. For more information about Berkeley Lab Computing Sciences, go to <http://www.lbl.gov/CS>. To apply, email your resume (plain text; no attachments, please) to CSRecruiter@lbl.gov.

Ernest Orlando Lawrence Berkeley National Laboratory has been a leader in science and engineering technology for over 70 years, serving as a powerful resource for the nation's scientific enterprise. Operated by the University of California for the U.S. Department of Energy, which provides the principal source of funds, Berkeley Lab is dedicated to performing leading edge research in the biological, physical, materials, chemical, energy, and computing sciences. For more information about Berkeley Lab, go to <http://www.lbl.gov>.



DISCLAIMER This document was prepared as an account of work sponsored by the United States Government. While this document is believed to contain correct information, neither the United States Government nor any agency thereof, nor The Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by its trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or The Regents of the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof, or The Regents of the University of California. Ernest Orlando Lawrence Berkeley National Laboratory is an equal opportunity employer.

LBNL/PUB-857



ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY

TEID-9149

The **NEWEST** computational
TECHNOLOGIES and **TOOLS**

The **MOST ADVANCED** computing and networking
FACILITIES

The **CUTTING EDGE** of
scientific **RESEARCH**

Careers
with a **FUTURE**

